

WHAT IS CLAIMED IS:

1. In a two part hair dye composition for the oxidative dyeing of hair, said composition comprising a first dye component composition comprising one or more primary dye intermediates and one or more coupling agents; and a second developer component composition comprising an oxidizing effective amount of an oxidizing agent, the improvement comprising at least one or both of said first and second component compositions containing a nonionic polyether polyurethane polymer and/or a cationic conditioning agent; the polyether polyurethane polymer being present in an amount sufficient to impart to said composition rheological properties required for thickened oxidative hair dyes and to enhance the hair conditioning effect of the cationic conditioning agent.
2. The composition according to claim 1, wherein said polyether polyurethane polymer is a block copolymer of polyurethane and polyethylene glycol or polypropyleneglycol.
3. The composition according to claim 2, wherein said polyether polyurethane polymer is Aculyn 44.
4. The composition according to claim 1, wherein said polyether polyurethane polymer is starch-modified.
5. The composition according to claim 4, wherein said starch-modified polyether polyurethane polymer is Aculyn 46.
6. The composition according to claim 1, further comprising a nonionic surfactant having a low hydrophilic lipophilic balance.
7. The composition according to claim 6, wherein said nonionic surfactant is selected from the group consisting of nonoxynol-1, nonoxynol-4,

undecyth-5, laureth-2, laureth-3, cetareth-3, cetareth-4, cetareth-5, C_{12} - C_{15} Pareth-3 (Neodol 25-3) and C_{12} - C_{15} Pareth-7 (Neodol 25-7).

5 8. The composition according to claim 1, wherein said cationic conditioning agent is selected from the group consisting of monoalkyl quaternary amines, dialkyl quaternary amines and polyquaternium compounds.

10 9. The composition according to claim 8, wherein said cationic conditioning agent is selected from the group consisting of stearyltrimonium chloride, soyatrimonium chloride, coco-ethyldimonium ethosulfate, dicetyldimonium chloride, dicocodimethyl ammonium chloride, distearyldimethyl ammonium chloride, behentrimonium chloride, Polyquaternium-6, Polyquaternium-22 and Polyquaternium-5.

15 10. The composition according to claim 1, wherein said cationic conditioning agent is present in an amount of about 0.1% to about 10%, by weight of the total composition.

20 11. The composition according to claim 1, wherein said primary dye intermediate is one or more dye compounds selected from the group consisting of p-phenylenediamine, p-toluenediamine, N,N-bis(2-hydroxyethyl)-p-phenylenediamine, p-aminophenol, 2-methyl-p-aminophenol, 2-β-hydroxyethyl-p-phenylenediamine and 3-methyl-p-aminophenol.

25 12. The composition according to claim 1, wherein said coupling agent is one or more coupler compounds selected from the group consisting of m-phenylenediamine, 2-(2',4'-diaminophenyl)ethanol, 1-naphthol, 2-methylnaphthol, resorcinol, 2-methylresorcinol, 2-amino-4-hydroxyethylaminoanisole, 4-amino-2-hydroxytoluene and m-aminophenol.

30

- 22 -

13. The composition according to claim 1, wherein the concentration of said primary dye intermediate or said coupling agent is between about 0.0001% and about 10% by weight of the total composition.

5 14. The composition according to claim 1, wherein said oxidizing agent is selected from the group consisting of hydrogen peroxide, urea peroxide, melamine peroxide, sodium perborate and sodium percarbonates.

10 15. The composition according to claim 1, wherein said oxidizing agent is present in the final mixture in an amount of about 1% to about 6%, by weight of the total composition.

15 16. The composition according to claim 1, further comprising a rheology modifier in one or both component parts of said composition.

20 17. The composition according to claim 16, wherein said rheology modifier is selected from the group consisting of alkylpolyglucosides, alkyl diethanolamides, alkyl monoethanolamides, surfactants, fatty alcohols and electrolytes.

18. The composition according to claim 16, wherein said rheology modifier is present in an amount of about 0.5% and about 10% by weight of said total composition.

25 19. The composition according to claim 1, further comprising an alkalizing agent.

30 20. The composition according to claim 19, wherein said alkalizing agent is selected from the group consisting of ammonia, monoethanolamine, aminomethylpropanol and sodium carbonate.

- 23 -

21. The composition according to claim 1, further comprising an organic solvent.

5 22. The composition according to claim 21, wherein the organic solvent is selected from the group consisting of ethyl alcohol, isopropyl alcohol, propylene glycol, carbitol, glycerin and hexylene glycol.

10 23. The composition according to claim 21, wherein the solvent is present in an amount of about 0.5% and about 40%, by weight, based on the total weight of the composition.

15 24. The composition according to claim 23, wherein the solvent is present in an amount of about 1.0% and about 20%, by weight, based on the total weight of the composition.

20 25. The composition according to claim 1, further comprising an additive ingredient selected from the group consisting of surfactants, antioxidants, fragrances, chelating agents, herbals, aesthetic enhancers, and other cosmetically acceptable hair dye materials.

26. The composition according to claim 1, wherein the polyether polyurethane polymer is present in an amount of about 0.15% to about 1.0%, by weight, based on the total weight of the composition.

25 27. The composition according to claim 26, wherein the polyether polyurethane polymer is present in an amount of about 0.2% to about 0.5%, by weight, based on the total weight of the composition.

30 28. The composition according to claim 1, wherein water is present in the final composition in an amount of about 30% to about 90%.

- 24 -

29. The composition according to claim 28, wherein water is present in the final composition in an amount of about 50% to about 70%.

5 30. A method of enhancing the conditioning effect of a keratin fiber, said conditioning effect produced by contacting said fiber with a composition containing a cationic conditioning agent, comprising adding to said composition a conditioning enhancing amount of one or more nonionic polyether polyurethane polymers.

10 31. The method according to claim 30, wherein said keratin fiber is a hair fiber.

15 32. A method of oxidatively dyeing and conditioning human hair, comprising applying onto the hair a tinctorially effective amount of said dye composition mixture according to claim 1 and maintaining contact of said dye composition mixture with the hair until the hair is dyed and conditioned.